REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed April 10, 2003. Through this response, claims 13-16 and 18 are canceled without prejudice, waiver, or disclaimer. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these canceled claims in a continuing application, if applicant so chooses, and does not intend to dedicate any of the canceled subject matter to the public. Claims 1-12, 17, and 19-23 remain in this case. Of these, claims 1-2, 5, 7, 10, 17, and 21 have been directly amended with this response to remove any ambiguity that may have been created by their original form. Claims 24-35 have also been added to the response. It is believed that the foregoing amendments and additions present no new matter to the instant application. Reconsideration and allowance of the presently pending claims is respectfully requested. Each rejection presented in the Office Action is discussed in the remarks that follow.

A. Claim Rejections – 35 U.S.C. § 102

Claims 1 and 13

Claims 1 and 13 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Gross (Pat No. 5,797,523). For a proper rejection of a claim under 35 U.S.C. § 102(b), the cited reference must disclose all elements/features/steps of the claim. See, e.g., E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

Independent 1, as amended, states:

A storage system comprising:

a container having a single wall with an outer surface and an inner surface and a first open end, said container defining an interior;

a closure lid *configured to be inserted within said open end and adapted to engage in a sealing relationship with said inner surface*; and

a compression link having a container engagement surface and a closure lid engagement surface, said compression link being configured to engage between said closure lid and said inner surface to retain said closure lid in sealing engagement with said container, said container engagement surface and said closure lid engagement surface being configured to extend outwardly from each other, said container engagement surface being adapted to engage said inner surface and said closure lid engagement surface being adapted to engage said closure lid such that, *said closure lid is retained in sealing engagement with said inner surface.*

(Emphasis added).

Independent claim 1 is allowable for at least the reason that Gross does not disclose, teach, or suggest the features that are highlighted in claim 1 above. Specifically, Gross teaches a closure being composed of a body (20) and a lid (40) (Col. 2, Lines 43-57). While the word "container" is used in Gross, it is not specifically taught or described in detail. Thus, Gross does not teach the same elements of container as taught in Applicant's claim 1 shown above. Additionally, Gross does not teach that the lid (40) should fit within a container. In fact, Gross teaches that the lid (40) should be attached to the body (20) via trunnions (70) and connected to a compression member (50); which in turn is connected to the body (20) via tabs (104) (See Figures 1-13). As such, the lid is never in contact with a container; and certainly does not fit within or sealingly engage the inner surface of the container. Thus Gross does not teach this element of Applicant's claim 1. Moreover, Gross does not teach a compression link being configured to engage the closure lid and the inner surface of the container. While Gross teaches a compression link being connected to the lid via a flexible hinge (Col. 5, Lines 49-55), it does not teach that the compression link should engage the inner surface of the container to form a sealing engagement. Instead, Gross teaches that the compression link should be connected to the body of the closure via tabs (Col. 6, Lines 10-17). Thus, Gross does not teach these elements of claim 1. In summary, Gross teaches nothing about sealing a closure lid to the inner surface of a container

via a compression link or other means. Thus, Gross does not anticipate claim 1, and Applicant respectfully requests that the rejection be withdrawn.

As claim 13 has been cancelled from the application, Applicant respectfully contends that the rejection is rendered moot.

Claims 17, 19, and 22-23

Claims 17, 19, and 22-23 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ahner (U.S. Pat. No. 4,330,711).

Independent claim 17, as amended, states:

A method for storing a material comprising:

> providing a container having a single wall with an inner surface and an outer surface, and a first open end, said container defining an interior;
> providing a closure lid adapted to be received within the open end;
> *providing a compression link having a container engagement surface and a closure lid engagement surface*; and
> *engaging said compression link between said closure lid and said inner surface such that said closure lid is retained by placing a portion of the closure lid under compression and a corresponding portion of the inner surface under tension.*

(Emphasis added).

Independent Claim 17 is allowable for at least the reason that Ahner does not disclose, teach, or suggest the features that are highlighted in claim 1 above. More specifically, Ahner does not teach a compression link having a closure lid engagement surface and a container engagement surface that retains the closure lid by applying compressive force against the closure lid and tensile force against the inner surface of the container. Ahner instead teaches that the method of retaining the closure lid is through welding or soldering the lid to the container (Col. 4, Lines 58-61). Thus, Ahner does not anticipate claim 17, and Applicant respectfully requests that the rejection be withdrawn.

If independent claim 17 is allowable over the prior art of record, then its dependent claims 19 and 22-23 are allowable as a matter of law, because these dependent claims contain all features/elements/steps of their respective independent claim 17. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing reasons for the allowability of claim 17, these dependent claims recite further features/steps and/or combinations of features/steps (as is apparent by examination of these claims themselves) that are patentably distinct from the prior art of record. Hence, there are other reasons why these dependent claims are allowable.

Claims 13-16

Claims 13-16 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Baatz (U.S. Pat. No. 4,528,454). However, as claims 13-16 have been cancelled from this response, Applicant respectfully contends that the rejections have been rendered moot.

B. Claim Rejections – 35 U.S.C. § 103

Claims 1-12

Claims 1-12 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Baatz (U.S. Pat. No. 4,528,454). The Office Action indicates that while Baatz does not specifically state a compression link for engaging the closure lid and outer wall, Baatz teaches a compression link (11) for engaging the closure lid (2) to the container (6) is an equivalent structure known in the art. However, indication 11 in Baatz is not a compression link, but rather a valve plug that fills a bore in the closure lid (Col. 4, Lines 1-5). As such, the plug provides no compression on the closure lid. Additionally, the bore and plug are located within the closure lid and therefore exert no force on the inner surface of the container. Thus, Baatz does not teach a compression link engaging the closure lid with the inner surface of the container is an equivalent method known in the art. In fact, Baatz teaches that the method of retaining the closure lid is through the

use of bolts or welded lip seals (Col. 4, Lines 34-36). These devices create a longitudinal force on the container versus the tensile force taught in Applicant's claim 1. Additionally, the tight fit of the closure lid with the container in Baatz "teaches away" from applying a compression link between the closure lid and the inner surface of the container as there is no room provided to insert a compression link.

Further, bolting the closure lid as taught in Baatz requires that the reaction surface (i.e., the surface where force is applied to retain the lid) and the sealing surface (i.e., the point at which the lid and is sealed with the container) be the same. Applicant's claim 1 teaches that the reaction surface and sealing surface are different. In particular, claim 1 indicates:

> "...a closure lid configured to be inserted within said open end and adapted to engage in a sealing relationship with said inner surface; and
>
> a compression link having a container engagement surface and a closure lid engagement surface, said compression link being configured to engage between said closure lid and said inner surface to retain said closure lid in sealing engagement with said container..."

Thus, the reaction surface is at the point where the compression link contacts the inner surface of the container and the sealing surface is at the point where the closure lid contacts the inner surface.

Furthermore, in at least some embodiments, Applicant's invention recognizes several advantages over the cited reference. Bolting the closure lid as taught in Baatz requires that the closure lid be thick enough to support the longitudinal force created by the bolts while also creating a need for additional seals due to the bolt holes in the closure lid. Applicant's claim 1, in at least some embodiments, avoids these problems by removing the need for bolts thus allowing for a smaller closure lid and removing the need for additional sealing of bolt holes. As such, in at

least some embodiments, claim 1 allows for maximizing interior space of the container while offering a more efficient sealing mechanism than Baatz.

Moreover, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. In re Oetiker, 977 F.2d 1443, 1447, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). Baatz provides no motivation for applying a different retention mechanism other than the use of bolts or welded lip seals. This is because Baatz *does not recognize the potential problems (e.g., overexposure of operating personnel to contents of container) created by retaining the closure lid via lip welds, as does Applicant.* As such, a person of ordinary skill in the art would receive no motivation from Baatz to modify the design. Accordingly, Applicant respectfully submits that claim 1 is nonobvious in light of Baatz.

If independent claim 1 is allowable over the prior art of record, then its dependent claims 2-12 are allowable as a matter of law, because these dependent claims contain all features/elements/steps of their respective independent claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing reasons for the allowability of claim 1, these dependent claims recite further features/steps and/or combinations of features/steps (as is apparent by examination of these claims themselves) that are patentably distinct from the prior art of record. Hence, there are other reasons why these dependent claims are allowable, some of which will be discussed hereinafter.

As per claim 2, Applicant's retention ledge is to be adapted to retain the closure lid in the container upon the engagement of the container engagement surface of the compression link with the retention ledge. Baatz teaches that the inner surface of the container wall contains recesses that form a seat complementing the plug type closure lid (Col. 3, Lines 43-45). In this way, the

closure lid (2) simply rests upon the recessed seat (9) of the inner surface, but *is not retained in the container* by the recesses (See Baatz Figures 1-2). More importantly, Baatz does not teach that a container engagement surface of a compression link engages a retention ledge. Baatz simply indicates a closure lid fitting snuggly within a container being retained by the use of bolts (40) or welded lip seals (Col. 4, Lines 34-36). Thus, it would be nonobvious for a person of ordinary skill in the art to retain the closure lid by using Applicant's method in light of Baatz.

As per claim 3, the Office Action indicates that Baatz teaches that the closure lid (2) has a stepped outer surface defining an annular region, and wherein the compression link (11) is adapted to be received within the annular region. However, as stated previously, Indication 11 in Baatz does not represent a compression link, but rather a plug for a bore in the top of the closure lid (See Col. 2, Lines 1-4). As such, there is no compression link taught in Baatz. Also, Baatz does not show a stepped outer surface defining an annular region. The bore (cylindrical hole) adapted for the plug in the closure lid is neither annular nor stepped. Thus, claim 3 is nonobvious in light of Baatz and Applicant respectfully requests that the rejection be withdrawn.

As per claim 4, the Office Action indicates that Baatz teaches the outer wall having a recess formed therein for receiving at least a portion of the compression link (11, 13). However, as already stated, indication 11 in Baatz is not a compression link, but rather a plug. Additionally, indication 13 in Baatz is not a recess formed for receiving a compression link. Indication 13 is taught to be monitoring or test bores, which can receive valves, pressure-monitoring devices, gas analyzers or sample units (Col. 4, Lines 7-10). These devices cannot be described as compression links capable of retaining the closure lid or recesses adapted to receive a portion of a compression link; and as such, claim 4 is nonobvious in light of Baatz.

As per claim 5, the Office Action indicates that Baatz teaches all aspects of the claim except for specifically stating a backing member adapted to be inserted between the closure lid and the compression link such that insertion therebetween urges the compression link radially outwardly from the closure lid and positions the engagement surface of the compression link for engagement with outer wall. Nonetheless, the Office Action indicates that Baatz teaches a backing member (3) adapted to be inserted between the closure lid (2) and the container outer wall and takes official notice by stating that the backing member (3) in Baatz is substantially similar to Applicant's backing member in that it will apply pressure radially outward and inward when the compression member is pushed down. However, Applicant respectfully traverses this assertion.

Foremost, as already discussed above, Baatz does not teach all aspects of claim 1 (of which claim 5 depends from). Secondly, indication 3 in Baatz points to the plug-type portion of the closure lid that rests upon a corresponding plug-type recess in the inner surface of the container (See Col. 3, Lines 43-46). Thus, indication 3 is simply part of the closure lid itself – and not a separate backing member capable of insertion following the insertion of the closure lid. Also, because the plug portion of the closure lid (3) in Baatz is simply seated on the complimentary plug-fitted portion of the inner wall of the container (8), the plug portion of the closure lid cannot apply pressure outwardly and inwardly as does Applicant's backing member does. Furthermore, the Office Action states that indication 11 and 13 in Baatz are compression links. However, as already stated, indications 11 and 13 are not compression links but rather plugs and bores respectively. Thus, there is no combination possible in Baatz that would yield Applicant's claimed invention. Quite simply, Baatz shows no backing member or compression link as does Applicant. Thus, Baatz would not teach, motivate, or otherwise lead a person of ordinary skill in

the art to invent a compression link and backing member in order to retain the closure lid. In fact, as previously stated, Baatz "teaches away" from any other retention methods by directly specifying that the closure lid should be retained using lip welds or bolts (Col. 4, Lines 34-36). As such, claim 5 is nonobvious in light of Baatz.

As per claim 7, as previously discussed, Baatz does not teach a compression link for insertion between the closure lid and the inner surface of the container. As such, it would certainly be nonobvious in light of Baatz to apply a bearing member in Baatz between the container engagement surface and closure lid engagement surface of a non-existent compression link. Thus, claim 7 is nonobvious and the rejection should be withdrawn. Additionally, the Office Action refers to the plug-portion of the closure lid (3) in Baatz as a backing member. However, as discussed previously, this plug-portion (3) is not in any form the substantial equivalent of Applicant's backing member. Nonetheless, assuming for argument sake, that Baatz does show a backing member, this would still not constitute the bearing member of Applicant's claim 7. Applicant's backing member is taught to be inserted between the closure lid and the container engagement surface of the compression link, whereas the bearing member is to be inserted within the compression link itself. Thus, the two are not equivalents in that they perform different functions, and hence could not be represented by the same device.

Also, the Office Action indicates that it would be obvious to one of ordinary skill in the art at the time the invention was made to have the bearing member be formed of a material harder than the material forming the closure lid. However, original claim 7 was written in error. In fact, newly added dependent claim 24 now teaches that *the stepped outer surface of the closure lid* (See claim 10) *should be made of a material harder than the hardness of the bearing member* such that the closure lid resists substantial deformation upon the engaging of the bearing

member. Thus, as the Office Action indicates the contrary, causing the stepped outer surface of the closure lid (of which the bearing engages) to be made out of a material harder than the bearing member would be nonobvious to a person of ordinary skill in the art.

As per claim 10, in light of Baatz it would be nonobvious for a person of ordinary skill in the art to include a stepped outer surface to engage a bearing member as there is no reason or motivation for doing so. Additionally, the Office Action indicates that Baatz teaches a bearing member (3) and takes official notice of the equivalence to Applicant's bearing member. Applicant respectfully traverses this rejection. As previously noted, indication 3 in Baatz simply indicates a portion of the closure lid – and does not represent a bearing member. Thus, claim 10 is nonobvious in light of Baatz and Applicant respectfully requests that the rejection be withdrawn.

As per claim 12, Baatz does not show a retention ledge holding down the lid hold down member. Baatz teaches that the outer lid should be held down via bolts or welded lip seals (Col. 4, Lines 34-36). These retention devices retain the outer lid by engaging the distal end of the container. Claim 12 teaches that the retention ledge is located on the *outer surface of the container – not the distal end.* Furthermore, Baatz does not show motivation for using any other method to retain the outer lid other than bolts or welded lip seals (as previously discussed). Thus, claim 12 is nonobvious in light of Baatz and the Applicant respectfully requests that the rejection be withdrawn.

Claim 18 (Claim 17)

Claim 18 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ahner. The Office Action indicates that Ahner discloses sealing the closure lid to the container comprising the steps of providing a compression link (7,16) having a container engagement

surface and a closure lid engagement surface, but does not disclose specifically placing the compression link between the closure lid and the outer wall of the container such that the closure lid is retained in sealing engagement with the outer wall. The Office Action concludes by taking official notice of the equivalence of the sealing means provided in Ahner and Applicant's invention. While claim 18 has been cancelled from the application – and thus any rejections rendered moot - a portion of the claim has been moved to claim 17, and thus a discussion is warranted.

As such, Applicant respectfully traverses the rejections. Foremost, Ahner teaches a method of applying longitudinal force to the top of the closure lid to seal it via the apparatus shown in indication 7 (See Figure 1). This longitudinal force is distinctly different than the radial tensile and compressive force that is taught in claim 17 to retain the closure lid. Furthermore, the tension element (7) in Ahner is taught to contain a pack of springs to relieve longitudinal tension of the container (Col. 5, Lines 11-12). Thus, Ahner stands in stark contrast to claim 17. Applicant's design choice of placing the compression link directly between the container and the closure lid provides the advantage of reducing longitudinal tension without instituting "a pack of springs," while also gaining the desired result of quick and effective closure of the storage container. Thus the compression link in Ahner is far from equivalent to Applicants as Applicant's offers many advantages not offered by the design in Ahner.

Additionally, the compression link (7) in Ahner is not designed to retain or seal the lid for long-term (or permanent) storage, as is Applicant's. Instead, Ahner requires the inner container to be welded for permanent storage (Col. 4, Lines 58-61). As Applicant has pointed out, the potential problems associated with welding the container (e.g., overexposure of operating personnel to contents of container) illustrate that Ahner does not recognize a need or motivation

to adapt the design, and as such Applicant's design is nonobvious in light of Ahner. Similarly, the compression link in Ahner cannot be considered the substantial equivalent of Applicant's as it is not adaptable to provide long-term retention of the contents of the container. Thus, the compression link in Ahner is not the substantial equivalent of Applicant's and is nonobvious in light of Ahner. Therefore Applicant respectfully requests that claim 17 be considered allowable.

Claims 20-21

Claims 20-21 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ahner in view of Baatz. If independent claim 17 is allowable over the prior art of record, then its dependent claims 19-23 (thus including 20 and 21) are allowable as a matter of law, because these dependent claims contain all features/elements/steps of their respective independent claim 1. *In re* Fine, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing reasons for the allowability of claim 17, these dependent claims recite further features/steps and/or combinations of features/steps (as is apparent by examination of these claims themselves) that are patentably distinct from the prior art of record. Hence, there are other reasons why these dependent claims are allowable, some of which will be discussed hereinafter.

As per claim 20, the Office Action indicates that Ahner teaches all aspects of the claim except the backing member; and that Baatz provides a backing member (3). However, referring to the discussion of Claim 17 above (of which claim 20 depends), Ahner does not teach all of the aspects of the claim (See discussions of claim 17 above). Furthermore, as previously discussed, Baatz does not teach a backing member. Indication 3 in Baatz represents *a stepped portion of the closure lid and does not teach a backing member* capable of urging a compression link radially outwardly from the closure lid. As such, Applicant respectfully submits that this combination is

in error, as the combination of Ahner with Baatz would simply create a plug-type bottom for the Ahner closure lid – not a backing member to urge radial compression.

As per claim 21, Applicant respectfully traverses the rejection on the grounds that the combination of Ahner with Baatz is in error. As previously discussed, indication 3 in Baatz is not a backing member or bearing member, but rather a plug-fitting portion of the closure lid. Therefore, the combination of Baatz with Ahner would only cause the bottom of the closure lid in Baatz to be plug-type. Thus, the combination does not yield a method of providing a bearing member capable of insertion between a portion of the compression link and engaging the bearing member with the closure lid. Hence, the Applicant respectfully requests that the rejection be withdrawn.

C. New Claims

As identified above, claims 24-35 have been added to the application through this Response. Applicant respectfully submits that these new claims describe inventions novel and nonobvious in view of the prior art of record, and, therefore, respectfully request that claims 24-35 be held to be allowable.

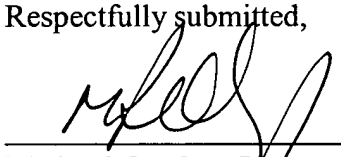
D. Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-12, 17, and 19-34 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,



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In re application of: Pennington, et al.

Group No.: 2881

Serial Number: 09/746,156

Examiner: Anthony G. Quash

Filing Date: 12/22/00

Title: **Storage Vessels and Related Closure Methods**

Attached are the following documents for filing with the USPTO:

Postcard
Amendment Transmittal Form (1 Page)
First Response with Amendments